

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

David H. Sherman et al.

Examiner:

Kathleen M. Kerr

Serial No.: Filed:

09/988384

Group Art Unit:
Docket:

600.536US1

1652

Title:

November 19, 2001 Docket: PROMOTER FOR METHYMYCIN AND PIKROMYCIN

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(c)(2), please charge Deposit Account No. 19-0743 in the amount of \$180.00 to cover the requisite fee as set forth in 37 C.F.R. §1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

09/27/2004 NROCHA1 00000003 190743 09988384

02 FC:1806

180.00 DA

Serial No :09/988384

Filing Date: November 19, 2001

Title: PROMOTER FOR METHYMYCIN AND PIKROMYCIN

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

DAVID H. SHERMAN ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6959

Date Appliment 22, 2014

Janet E. Embretson

Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 22 day of September, 2004.

Signature

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number, Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE 09/988,384 **Application Number** STATEMENT BY APPLICANT November 19, 2001 (Use as many sheets as necessary) Filing Date Sherman, David **First Named Inventor** 1652 **Group Art Unit** SEP 2 4 2004 **Examiner Name** Kerr, Kathleen RADEMARK Attorney Docket No: 600.536US1 Sheet 1 of 8

		US P	ATENT DOCUMENT	S		
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-4,874,748	10/17/1989	Katz, L., et al.	514	29	03/24/1986
	US-4,885,251	12/05/1989	Ingolia, T. D., et al.	435	183	08/08/1986
	US-4,886,757	12/12/1989	Richardson, M. A.	435	252.3	04/15/1987
	US-4,892,819	01/09/1990	Carr, L. G., et al.	435	69.1	11/25/1985
	US-4,935,340	06/19/1990	Baltz, R. H., et al.	435	6	06/07/1985
	US-4,952,502	08/28/1990	Epp, J. K., et al.	435	76	02/24/1987
	US-5,057,425	10/15/1991	Stanzak, R. K.	435	252.3	07/29/1988
	US-5,063,155	11/05/1991	Cox, K. L., et al.	435	76	03/28/1988
	US-5,068,189	11/26/1991	Epp, J. K., et al.	435	183	05/13/1988
	US-5,098,837	03/24/1992	Beckmann, R. J., et al.	435	172.3	06/07/1988
	US-5,108,918	04/28/1992	Groenen, M. A., et al.	435	172.3	02/01/1989
	US-5,116,968	05/26/1992	Lawrence, G. C., et al.	536	71	12/20/1990
	US-5,141,926	08/25/1992	Weber, J. M., et al.	514	29	04/18/1990
	US-5,149,638	09/22/1992	Beckmann, R. J., et al.	435	76	07/30/1991
	US-5,149,639	09/22/1992	Katz, L., et al.	435	76	05/25/1989
	US-5,168,052	12/01/1992	Cox, K. L., et al.	435	72	03/20/1990
	US-5,191,016	03/02/1993	Yalpani, M.	525	54.2	07/19/1990
	US-5,229,279	07/20/1993	Peoples, Oliver P., et al.	435	135	08/13/1990
	US-5,245,023	09/14/1993	Peoples, Oliver P., et al.	536	23.2	05/08/1991
	US-5,250,430	10/05/1993	Peoples, O. P., et al.	435	232	09/14/1992
	US-5,462,862	10/31/1995	Groenen, M. A., et al.	435	69.1	01/25/1993
	US-5,480,794	01/02/1996	Peoples, O. P., et al.	435	232	08/12/1994
	US-5,512,669	04/30/1996	Peoples, O. P., et al.	536	23.2	08/29/1994
	US-5,514,544	05/07/1996	Rao, R. N., et al.	435	6	07/26/1991
	US-5,534,432	07/09/1996	Peoples, O. P., et al.	435	240.4	04/07/1995
	US-5,545,553	08/13/1996	Gotschlich, E. C.	435	252.33	09/26/1994
	US-5,589,385	12/31/1996	Ryan, M. J., et al.	435	258.35	09/22/1993
	US-5,610,041	03/11/1997	Somerville, C. R., et al.	435	135	06/06/1994
	US-5,661,026	08/26/1997	Peoples, O. P., et al.	435	252.3	05/04/1995
	US-5,663,063	09/02/1997	Peoples, O. P., et al.	435	135	05/10/1995
	US-5,665,564	09/09/1997	Caruso, M., et al.	435	69.1	08/09/1993
	US-5,672,491	09/30/1997	Khosla, C., et al.	435	148	05/06/1994
	US-5,672,497	09/30/1997	Cox, K. L., et al.	435	320.1	12/21/1995
	US-5,702,717	12/30/1997	Cha, Y., et al.	424	425	10/25/1995

**EXAMINER** 

PTO/SB/08A(10-01)

Approved for use through 10/31/2002. OMB 651-0031

US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

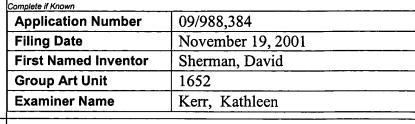
Complete if Known Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 09/988,384 STATEMENT BY APPLICANT November 19, 2001 (Use as many sheets as necessary) **Filing Date First Named Inventor** Sherman, David 1652 **Group Art Unit** SEP 2 4 2004 Kerr, Kathleen **Examiner Name** Attorney Docket No: 600.536US1 Sheet 2 of 8

US-5,712,146	01/27/1998	Khosla, C. , et al.	435	252.35	06/07/1995
US-5,716,849	02/10/1998	Ligon, J. M., et al.	435	419	12/14/1996
US-5,744,350	04/28/1998	Vinci, V. A., et al.	435	254.11	05/25/1995
US-5,798,235	08/25/1998	Peoples, O. P., et al.	435	135	06/07/1995
US-5,824,513	10/20/1998	Katz, L., et al.	435	76	01/17/1991
US-5,830,750	11/03/1998	Khosla, C., et al.	435	252.35	03/31/1997
US-5,843,718	12/01/1998	Khosla, C., et al.	435	69.1	03/31/1997
US-5,866,410	02/02/1999	Ryan, M. J., et al.	435	320.1	06/07/1995
US-5,962,290	10/05/1999	Khosla, C., et al.	435	183	10/14/1997
 US-6,022,731	02/08/2000	Khosla, C., et al.	435	252.35	03/31/1997
US-6,033,883	03/07/2000	Barr, P. J., et al.	435	148	12/11/1997
US-6,077,696	06/20/2000	Khosla, C., et al.	435	135	03/05/1999
US-6,090,601	07/18/2000	Gustafsson, C., et al.	435	183	01/23/1998
US-6,117,659	09/12/2000	Ashley, G., et al.	435	155	05/27/1999
US-6,303,767	10/16/2001	Betlach, Melanie C., et al.			11/05/1999

-			FOREIGN PATEN	IT DOCUMENTS			
Examiner Initials*	Foreign Docume	nt No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T <sup>2</sup>
	CA-2107505	<b>/</b>	04/09/1994	Baltz, Richard H.	C12 N	015/11	
	EP-0 062 080	✓ <u> </u>	10/13/1982	Spaar, H. D.	B01D	33/04	
	EP-0 238 323	·/	09/23/1987	Cox, K. L., et al.	C12 N	15/00	
- m	EP-0 361 905	$\checkmark$	04/04/1990	Epp, J. K., et al.	C12 N	15/52	
	EP-0 468 217		01/29/1992	Ryan, M. J., et al.	C12 N	15/76	
-	EP-0 791 655	✓ 	08/27/1997	Dehoff, B. S., et al.	C12 N	15/52	
	EP-0 791 656	<b>✓</b>	08/27/1997	Burgett, Stanley G., et al.	C12 N	15/52	
<del></del>	FR-2 696 189	<u>/</u>	04/01/1994	Blanc, V., et al.	C12 N	15/31	
	JP-10094395	✓	04/14/1998	Reeves, Christopher, et al.	C12 N	015/09	
	JP-61205484		09/11/1986	Aiba, Shichi	C12 N	019/54	
	JP-62029595	$\int_{\gamma}$	02/07/1987	Fujiwara, Tatsuro , et al.	C07 H	17/08	
	JP-6261765		09/20/1994		C12 N	015/54	

**EXAMINER** 

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control numb

Sheet 3 of 8

Attorney Docket No: 600.536US1

-	HADEMA	FOREIGN PATEN	IT DOCUMENTS			
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T²
	TA-202481	03/21/1993	Donadio, S	C12 N	015/10	
•	WO-87/03907	07/02/1987	Humphreys, Gwynfor O., et al.	C12 N	15/00	
	WO-92/16629 /	10/01/1992	Niemi, Jarmo , et al.	C12 N	15/31	
	WO-93/13663 🗸	07/22/1993	Katz, Leonard, et al.	A01N	43/22	
	WO-95/08548	03/30/1995	Khosla, Chaitan , et al.	C07	311/78	
	WO-96/01901 🗸	01/25/1996	Blanc, Veronique , et al.	C12 N	15/52	
	WO-96/10084 🗸	04/04/1996	Egel-Mitani, Michi, et al.	C12 N	15/52	
	WO-96/40968 /	12/19/1996	Khosla, Chaitan	C12P	7/26	
-	WO-97/02358 🗸	01/23/1997	Khosla, C., et al.	C12P	19/62	
	WO-97/08323 🗸	03/06/1997	Schupp, Thomas , et al.	C12 N	15/52	
	WO-97/22711 /	06/26/1997	Sherman, David H., et al.	C12P	7/62	
	WO-97/23630 🗸	07/03/1997	Summers Jr., Richard G., et al.	C12 N	15/54	
	WO-98/00557 /	01/08/1998	Gruys, Kenneth J., et al.	C12 N	15/82	
	WO-98/01546 🗸	01/15/1998	Leadlay, Peter F., et al.	C12 N	15/00	
	WO-98/01571 🗸	01/15/1998	Leadlay, Peter F., et al.	C12 N	15/62	
	WO-98/04713 ∫	02/05/1998	Snell, Kristi D., et al.	C12 N	15/52	
	WO-98/07868 ./	02/26/1998	Schupp, Thomas , et al.	C12 N	15/52	
	WO-98/09978 /	03/12/1998	Or, Yat S., et al.	C07 H	17/08	
	WO-98/11230 🗸	03/19/1998	Oki, Toshikazu , et al.	C12 N	15/52	
	WO-98/27203 🗸	06/25/1998	Barr, Philip J., et al.	C12 N	15/00	
	WO-98/36078 🗸	08/20/1998	Dennis, Douglas E., et al.	C12 N	15/52	
1	WO-98/49315 J	11/05/1998	Khosla, Chaitan , et al.	C12 N	15/52	

**EXAMINER** 

PTC/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Inder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 09/988,384 STATEMENT BY APPLICANT November 19, 2001 (Use as many sheets as necessary) Filing Date **First Named Inventor** Sherman, David **Group Art Unit** 1652 **Examiner Name** Kerr, Kathleen SEP 2 4 2004 Attorney Docket No: 600.536US1 Sheet 4 of 8

	WADE NO	FOREIGN PATEN	IT DOCUMENTS		<del>,</del>	
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T <sup>2</sup>
	WO-98/51695 🗸	11/19/1998	Katz, Leonard , et al.	C07 H	17/00	
	WO-98/530097 /					
	WO-98/54308 /	12/03/1998	Leadlay, Peter F., et al.	C12 N	15/00	
	WO-99/03986 🗸	01/28/1999	Khosla, Chaitan , et al.	C12 N	15/00	
	WO-99/05283 /	02/04/1999	Fromentin, C., et al.	C12 N	15/52	
	WO-99/61599 ./	12/02/1999	Ashley, Gary , et al.	C12 N	15/00	

C	OTHER	DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
miner ials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		ADLER, T., "Plants: The New Plastics Makers", Science News, 146(26-27),	
		(December 17, 1994),420	
		ANDERSEN, J. F., et al., "Characterization of Saccharopolyspora erythraea	
		Cytochrome P-450 Genes and Enzymes, Including 6-Deoxyerythronolide B	
		Hydroxylase", Journal of Bacteriology, 174(3), (February 1992),725-735	
	1:	ANDERSON, A. J., et al., "Occurrence, Metabolism, Metabolic Role, and	
		Industrial Uses of Bacterial Polyhydroxyalkanoates", Microbiological Review, 54(4), (1990),450-472	
		BETLACH, MELANIE C., et al., "Characterization of the macrolide P-450	+
		hydroxylase from Streptomyces venezuelae which converts narbomycin to	
		picromycin", Biochemistry, 37 (42), (October 1998),14937-14942	
		BEVITT, DEBRA J., et al., "6-Deoxyerythronolide-B synthase 2 from	
	;	Saccharopolyspora erythraea; cloning of the structural gene, sequence analysis	
	6	and inferred domain structure of the multifunctional enzyme", European Journal	
		of Biochemistry, 204(1), (February 15, 1992),39-49	
ľ		BRANDL, H., et al., "Plastics from Bacteria and for Bacteria: Poly(beta-hydroxy-	
	6	alkanoates) as Natural, Biocompatible, and Biodegradable Polyesters",	
		Advances in Biochemical Engineering Biotechnology, 41, (1990),77-93	
		BYROM, D., "Polymer synthesis by micro-organisms: technology and	
		economics", <u>Tibtech (Trends in Biotechnology), 5,</u> (1987),246-250	
		CANE, DAVID E., et al., "Methymycin biosynthesis. Isolation of P450	
		Monooxygenase activity in a cell-free system from Streptomyces venezuelae",	
	<del> </del>	Journal of the American Chemical Society, 120(11), (1998),2682-2683	↓_
		CORTES, J., et al., "Repositioning of a domain in a modular polyketide synthase	
		to promote specific chain cleavage", <u>Science, 268(5216).</u> (June 9, 1995),1487-	
	t	to promote specific chain cleavage", <u>Science, 268(5216),</u> (June 9, 1995),1487- 1489	<b>5</b> C

**EXAMINER** 

Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 09/988,384 STATEMENT BY APPLICANT November 19, 2001 (Use as many sheets as necessary) Filing Date **First Named Inventor** Sherman, David 1652 **Group Art Unit** Kerr, Kathleen **Examiner Name** Attorney Docket No: 600.536US1 Sheet 5 of 8 RADEMAR

		R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		CUNDLIFFE, E., "Glycosylation of Macrolide Antibiotics in Extracts of	
		Streptomyces lividans", Antimicrobial Agents and Chemotherapy, 36(2),	
		(1992),348-352	
		DONADIO, S., et al., "An erythromycin analog produced by reprogramming of	
		polyketide synthesis", Proceedings of the National Academy of Sciences USA,	
		90(15), (August 1, 1993),7119-7123	
		DONADIO, S., et al., "Modular Organization of Genes Required for Complex	
		Polyketide Biosynthesis", Science, 252, (1991),675-679	
		DONADIO, STEFANO, et al., "Organization of the enzymatic domains in the	
		multifunctional polyketide synthase involved in erythromycin formation in	
		saccharopolyspora erythraea", Gene, 111(1), (1992),51-60	
		DOUMITH, M., "Interspecies Complementation in Saccharopolyspora	
		erythraea: Elucidation of the Function of oleP1, oleG1 and oleG2 from the	
		Oleandomycin Biosynthetic Gene Cluster of Streptomyces antibioticus and	
		Generation of New Erythromycin Derivatives", Molecular Microbiology, 34,	
		(1999),1039-1048	
		FERNANDEZ-MORENO, M. A., et al., "Streptothricin Biosyntheses Is Catalyzed	
		by Enzymes Related to Nonribosomal Peptide Bond Formation", Journal of	
		Bacteriology, 179(22), (1997),6929-6936	
		FU, H., et al., "Antibiotic activity of polyketide products derived from	
		combinatorial biosynthesis: Implications for directed evolution", Molecular	1
	_	<u>Diversity</u> , 1(2), (1995),121-124	
		GAISSER, S., et al., "Analysis of eryBI, eryBIII and eryBVII from the erthromycin	_
		biosynthetic gene cluster in Saccharopolyspora erthraea", Molecular & General	
		<u>Genetics, 258,</u> (1998),78-88	
		GAISSER, S., et al., "Analysis of Seven Genes from the eryAl-eryK Region of	
		the Erythromycin Biosynthetic Gene Cluster in Saccharopolyspora erythraea",	
	··	Mol. Gen. Genet., 256(3), (October 1997),239-251	
		GAISSER, S., et al., "Cloning of an Avilamycin Biosynthetic Gene Cluster from	
		Streptomyces viridochromogenes Tu57", Journal of Bacteriology, 179(20),	
		(1997),6271-6278	
		HAN, L., et al., "Cloning and Characterization of Polyketide Synthase Genes for	
		Jadomycin B Biosynthesis in Streptomyces venezuelae ISP5230", Microbiology,	
		<u>140,</u> (1994),3379-3389	
		HERNANDEZ, C., et al., "Characterization of a Streptomyces antibioticus Gene	
		Cluster Encoding a Glycosyltransferase Involved in Oleandomycin Inactivation",	
		<u>Gene, 134,</u> (1993),139-140	L
		HOPWOOD, D. A., "Antibiotics: Opportunities for Genetic Manipulation",	
		Philosophical Transactions of the Royal Society of London, 324, (1989),549-562	
		HOPWOOD, D A., et al., "In: Genetic Manipulation of Streptomyces: A	
		Laboratory Manual", Norwich: John Innes Foundation, (1985),77-78, 292-293,	

**EXAMINER** 

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patient & Trademark Office: U.S. DEPARTMENT OF COMMERCE
on of information unless it contains a valid OMB control number.

	Officer the Paper Hork House (China Persons are 1	addition to respond to a conscitor of mitoritation disease it doring a valid of the cortes instruction
Substitute for form 1449A/PTO	Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	09/988,384
(Use as many sheets as necessary), PE	Filing Date	November 19, 2001
	First Named Inventor	Sherman, David
(3)	Group Art Unit	1652
SEP 2 4 2004	Examiner Name	Kerr, Kathleen
Sheet 6 of 8	Attorney Docket No: 6	00.536US1

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		214	
		HOPWOOD, D. A., et al., "Molecular Genetics of Polyketides and its Comparison	
		to Fatty Acid Biosynthesis", Annu. Rev. Genet., 24, (1990),37-66	1
		JACOBSEN, J. R., et al., "Precursor-Directed Biosynthesis of Erythromycin	
		Analogs by an Engineered Polyketide Synthase", Science, 277, (1997),367-369	
		JOSHI, A. K., et al., "Construction of a cDNA encoding the multifunctional animal	
		fatty acid synthase and expression in Spodoptera frugiperda cells using	1
		baculoviral vectors", <u>Biochem. J., 296,</u> (1993),143-149	
		JOSHI, ANIL K., et al., "Construction, expression, and characterization of a	
		mutated animal fatty acid synthase deficient in the dehydrase function", Journal	
10000		of Biological Chemistry, 268(30), (1993),22508-22513	
		KAO, C. M., et al., "Engineered Biosynthesis of a Complete Macrolactone in a	
		Heterologous Host", Science, 265, (1994),509-512	
		KAO, C. M., et al., "Manipulation of Macrolide Ring Size by Directed	
		Mutagenesis of a Modular Polyketide Synthase", J. Am. Chem. Soc., 117,	
		(1995),9105-9106	
		KATZ, L., "Manipulation of Modular Polyketide Synthases", Chem. Rev., 97(7),	
		(1997),2557-2575	
		KEALEY, J. T., et al., "Production of a Polyketide Natural Product in	
		Nonpolyketide-Producing Prokaryotic and Eukaryotic Hosts", Proceedings of the	
		National Academy of Sciences USA, 95(2), (January 20, 1998),505-509	
		KHOSLA, C., "Harnessing the Biosynthetic Potential of Modular Polyketide	
		Synthases", Chem. Rev., 97, (1997),2577-2590	
		LIU, L., et al., "Biosythesis of 2-Nor-6-deoxyerythronolide B by Rationally	
		Designed Domain Substitution", J. Am. Chem. Soc., 119, (1997),10553-10554	
		LOMOVSKAYA, N., et al., "Gene disruption and replacement in the rapamycin-	
		producing Stretomyces hygroscopicus strain ATCC 29253", Microbiology, 143(	
		Pt 3), (March 1997),875-883	
		MADDURI, K., "Production of the Antitumor Drug Epirubicin (4'-epidoxorubicin)	
		and Its Precursor by a Genetically Engineered Strain of Streptomyces	
		peucetius", Nature Biotechnology, 16, (Jan., 1998),69-74	
		MARAHIEL, M. A., et al., "Modular Peptide Synthetases Involved in	<del></del>
		Nonribosomal Peptide Synthesis", Chemical Reviews, 97, (1997),2651-2673	
		MCDANIEL, R., et al., "Engineered Intermodular and Intramodular Polyketide	<u> </u>
		Synthase Fusions", Chemistry and Biology, 4, (1997),667-674	1
		MCDANIEL, R., et al., "Rational Design of Aromatic Polyketide Natural Products	
		by Recombinant Assembly of Enzymatic Subunits", Nature, 375, (1995),549-554	
		PEOPLES, O. P., et al., "Poly-beta-hydroxybutyrate biosynthesis in Alcaligenes	
		eutrophus H16. Characterization of the genes encoding beta-ketothiolase and	
		acetoacetyl-CoA reductase", Journal of Biological Chemistry, 264(26),	
		(September 15, 1989),15293-15297	

**EXAMINER** 

PTC/SB/08A(10-01)
Approved for use through 10/31/2002, OMB 851-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE 09/988,384 **Application Number** STATEMENT BY APPLICANT (Use as many sheets as necessary). **Filing Date** November 19, 2001 **First Named Inventor** Sherman, David 1652 **Group Art Unit** SEP 2 4 2004 Kerr, Kathleen **Examiner Name** RADEMAR Attorney Docket No: 600.536US1 Sheet 7 of 8

Examiner Initials*	Cite No 1	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s),	T²
		publisher, city and/or country where published.	-
		POIRIER, Y., et al., "Polyhydroxybutyrate, a Biodegradable Thermoplastic, Produced in Transgenic Plants", Science, 256, (1992),520-523	
		POIRIER, Y., et al., "Production of Polyhydroxyalkanoates, a Family of	-
		Biodegradable Plastics and Elastomers, in Bacteria Plants", Bio/Technology, 13,	
		(1995),142-150	
		QUIROS, L. M., et al., "Two glycosyltransferases and a glycosidase are involved	╁
		in oleandomycin modification during its biosynthesis by Streptomyces	1
		antibioticus", Molecular Microbiology, 28, (1998),1177-1185	
		RUAN, XIAOAN, et al., "Acyltransferase domain substitutions in erythromycin	+
		polyketide synthase yield novel erythromycin derivatives", <u>Journal of</u>	
		<u>Bacteriology, 179(20),</u> (Oct. 1997),6416-6425	
		SALAH-BEY, K., et al., "Targeted gene inactivation for the elucidation of	+
		deoxysugar biosynthesis in the erythromycin producer Saccharopolyspora	
		erythraea", Molecular and General Genetics, 257(5), (March 1998),542-553	
		SCHNEIDER, A., et al., "Genetic Evidence for a Role of Thioesterase Domains,	
		Integrated in or Associated with Peptide Synthetases, in Non-Ribosomal Peptide	
		Biosythesis in Bacillus subtilis", <u>Arch. Microbiol.</u> , 169, (1998),404-410	1
		SCHWECKE, T., et al., "The Biosynthetic Gene Cluster for the Polyketide	<del>  -</del>
		Immunosuppressant Rapamycin", Proc. Natl. Acad. Sci. USA, 92, (1995),7839-	İ
		7843	
		SERVICE, R. F., "Hijacking a Cell's Chemical Paths to Make New Antibiotics",	1
		Science, 277, (1997),319	
		STASSI, D., et al., "Identification of a Saccharopolyspora erythraea Gene	<b> </b>
		Required for the Final Hydroxylation Step in Erythromycin Biosynthesis", <u>Journal</u>	
		of Bacteriology, 175, (1993),182-189	
		STAUNTON, J., et al., "Biosynthesis of Erythromycin and Rapamycin", Chem.	
		Rev., 97, (1997),2611-2629	
		SUMMERS, RICHARD G., et al., "Sequencing and mutagenesis of genes from	
		the erythromycin biosynthetic gene cluster of Saccharopolyspora erythraea that	
		are involved in I-mycarose and d-desosamine production", Microbiology, 143,	
		(Oct. 1997),3251-3262	
		TSOI, C. J., et al., "Combinatorial Biosynthesis of 'Unnatural' Natural Products:	
		The Polyketide Example", Chemistry and Biology, 2, (1995),355-362	
		VERDINE, G. L., et al., "The Combinatorial Chemistry of Nature", Nature, 384,	
		(1996),11-13	<u> </u>
		VILCHES, C., et al., "Role of Glycosylation and Deglycosylation in Biosynthesis	
	•	of and Resistance to Oleandomycin in the Producer Organism, Streptomyces	
		antibioticus", Journal of Bacteriology, 174, (1992),161-165	ļ
		WITT, D., et al., "Unification of the Genera Streptoverticillum and Streptomyces,	
		and Amendation of Streptomyces Waksman and Henrici 1943, 339", System.	
		Appl. Microbiol., 13, (1990),361-371	

**EXAMINER** 

PTO/SB/08A(10-01)
Approved for use through 10/31/2022. OMB 561-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 09/988,384 STATEMENT BY APPLICANT (Use as many sheets as necessary Filing Date November 19, 2001 **First Named Inventor** Sherman, David 1652 **Group Art Unit** SEP 2 4 2004 Kerr, Kathleen **Examiner Name** Attorney Docket No: 600.536US1 Sheet 8 of 8 RADEMARY

	OTHER DOCUMENTS NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
		XUE, Y., "A Gene Cluster for Macrolide Antibiotic Synthesis in Streptomyces venezuelae: Architecture of Metabolic Diversity", <u>Proc. Natl. Acad. Sci. USA, 95,</u> (Oct., 1998),12111-12116				
		YAMASE, H., "Engineering a Hybrid Sugar Biosynthesis Pathway: Production of L-Rhamnose and Its Implications on Dihydrostreptose Biosynthesis", <u>Journal of the American Chemical Society</u> , (2000),12397-12398				
		YANG, K., et al., "Accumulation of the angucycline antibiotic rabelomycin after disruption of an oxygenase gene in the jadomycin B biosynthetic gene cluster of Stretomyces venezuelae", Microbiology, 142(1), (1996),123-132				
		YLIHONKO, K., et al., "A gene cluster involved in nogalamycin biosynthesis from Streptomyces nogalater: Sequence analysis and complementation of early-block mutations in the anthracycline pathway", Molecular & General Genetics. 251(2), (1996),113-120				
		ZHAO, LISHAN, et al., "Biosynthesis of desosamine: molecular evidence suggestion B-glucosylation as a self-resistance mechanism in Methymycin/neomethymycin producing strain, Streptomyces venezuelae", Journal of the American Chemical Society, 120 (36), (September 1998),9374-9375				